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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/504,393

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This Raw Listing contains the General Information Section and up to first 5 pages.

<110> APPLICANT: BACHMANN, Heinrich 1 2 BRUGGER, Roland ENTERED 3 FRIEDLEIN, Arno M WIRTZ, Gabriele M WOGGON, Wolf-Dietrich 5 WYSS, Adrian 7 WYSS, Markus 8 <120> TITLE OF INVENTION: BETA, BETA-CAROTENE 15, 15'-DIOXYGENASES, NUCLEIC ACID 9 SEQUENCES CODING THEREFOR AND THEIR USE 10 <130> FILE REFERENCE: B,B-CAROTENE 15,15'-DIOXYGENASES,... <140> CURRENT APPLICATION NUMBER: US/09/504,393 11 <141> CURRENT FILING DATE: 2000-02-15 <150> EARLIER APPLICATION NUMBER: 103382.0 <151> EARLIER FILING DATE: 1999-02-22 <160> NUMBER OF SEQ ID NOS: 10 15 16 <170> SOFTWARE: PatentIn Ver. 2.1 17 <210> SEQ ID NO 1 18 <211> LENGTH: 526 <212> TYPE: PRT 19 <213> ORGANISM: CHICKEN 20 <400> SEQUENCE: 1 21 Met Glu Thr Ile Phe Asn Arg Asn Lys Glu Glu His Pro Glu Pro Ile 22 23 10 24 Lys Ala Glu Val Gln Gly Gln Leu Pro Thr Trp Leu Gln Gly Val Leu 25 25 Leu Arg Asn Gly Pro Gly Met His Thr Ile Gly Asp Thr Lys Tyr Asn 26 27 His Trp Phe Asp Gly Leu Ala Leu Leu His Ser Phe Thr Phe Lys Asn 28 29 55 Gly Glu Val Tyr Tyr Arg Ser Lys Tyr Leu Arg Ser Asp Thr Tyr Asn 30 31 Cys Asn Ile Glu Ala Asn Arg Ile Val Val Ser Glu Phe Gly Thr Met 32 33 90 Ala Tyr Pro Asp Pro Cys Lys Asn Ile Phe Ala Lys Ala Phe Ser Tyr 34 35 100 105 Leu Ser His Thr Ile Pro Glu Phe Thr Asp Asn Cys Leu Ile Asn Ile 36 37 120 Met Lys Thr Gly Asp Asp Tyr Tyr Ala Thr Ser Glu Thr Asn Phe Ile 38 39 135 140 40 Arg Lys Ile Asp Pro Gln Thr Leu Glu Thr Leu Asp Lys Val Asp Tyr 41 150 155 42 Ser Lys Tyr Val Ala Val Asn Leu Ala Thr Ser His Pro His Tyr Asp 43 165 170

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147
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160
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161
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162
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163
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164
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165
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166
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168
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169
170
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171
172
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173
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174
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175
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176
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177
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178
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179
180
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181
182
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183
184
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187
188
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189
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190
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191
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192
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193
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194
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	197		Leu	Tyr	Asp	Met	Phe	Tyr	Leu	Lys	Lys	Leu	Asp	Lys	Asp	Phe	Glu	Val
	198						325			_	_	330	-	_	_		335	
	199		Asn	Asn	Lys	Leu	Thr	Ser	Ile	Pro	Thr	Cys	Lys	Arg	Phe	Val	Val	Pro
	200				_	340					345	•	-	Ū		350		
	201		Leu	Gln	Tyr	Asp	Lys	Asp	Ala	Glu	Val	Gly	Ser	Asn	Leu	Val	Lys	Leu
	202				355	•	•	•		360		•			365		•	
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	204			370					375	•		•	-	380			•	•
	205		Gln	Pro	Glu	Ile	Leu	Cys	Glu	Gly	Ile	Glu	Leu	Pro	Arg	Val	Asn	Tyr
	206		385					390		-			395		_			400
	207		Asp	Tyr	Asn	Gly	Lys	Lys	Tyr	Lys	Tyr	Val	Tyr	Ala	Thr	Glu	Val	Gln
	208					_	405	_	_	-	_	410	_				415	
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	210		_			420			_		425	-				430		-
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	212				435			_		440		_	_		445			
	213		Phe	Val	Pro	Ser	Pro	Asp	Ala	Arg	Glu	Glu	Asp	Glu	Gly	Val	Val	Leu
	214			450				_	455	_			_	460	_			
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	216		465					470				_	475					480
	217		Leu	Asp	Ala	Lys	Thr	Phe	Lys	Glu	Leu	Gly	Arg	Ala	Thr	Val	Asn	Val
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	234			Phe	Ile	Arg	Thr		Ala	Tyr	Val	Arg	Ala	Met	Thr	Glu	Lys	Arg
	235		65					.70			_	_	75	_	_			80
	236		Ile	Val	Ile	Thr		Phe	GTA	Phe	Thr		Cys	Ala	Phe	Pro	_	Pro
	237		_	_	_		85		_			90					95	
	238		Cys	гàг	Asn		Phe	ser	Arg	Phe		ser	Tyr	Phe	Arg	_	Val	Glu
	239			m¹		100		-		_	105	_	_			110	_	_
	240		۷al	Thr	_	Asn	Ala	Leu	Val		Val	Tyr	Pro	Val	Gly	Glu	Asp	Tyr
	241		_		115	_,		_,	_	120		_,	_		125	_		_,
	242		Tyr		Cys	Thr	GLu	Thr		Phe	Ile	Thr	гÀа		Asn	Pro	Glu	Thr
	243		<b>.</b> -:	130	m¹-	<b>-</b> 7	D1- ·	m'-	135	<b>~</b> 3				140		<b></b>		<b>a</b> :
Plea	se Note	.\	Leu	Glu	Thr	тте	Pne	Thr	гÀз	GIN	val	Asp	Leu	Cys	Asn	Tyr	val	ser
Lice	,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		. <b>.</b>			_		_						_			1	/

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to nsure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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## VERIFICATION SUMMARY PATENT APPLICATION US/09/504,393 TIME: 16:12:30

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Original Text Line ? Error/Warning

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